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10/787,515

02/26/2004

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EXAMINER

VAUTROT, DENNIS L

ART UNIT

PAPER NUMBER

2167

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/787,515

Applicant(s)

CLARKE ET AL.

Examiner

Dennis L. Vautrot

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/26/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 26 February 2004 has been received and entered into the record. Since the IDS complies with the provisions of MPEP § 609, the references cited therein have been considered by the examiner. See attached form PTO-1449.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-13 are rejected under 35 U.S.C. 101. These claims are for a system. However, all of the elements claimed could be reasonably interpreted in light of the disclosure by an ordinary artisan as being software alone, and thus is directed to software per se, which is non-statutory.

In order for a software claim to be statutory, it must be claimed in combination with an appropriate medium and/or hardware to establish a statutory category of invention and enable any functionality to be realized.

This interpretation of 35 U.S.C. § 101 is consistent with the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, published on 26 October 2005, which can be found at

<[http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)>, particularly with respect to ANNEX IV Computer-Related Nonstatutory Subject Matter, beginning on page 50.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 9, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Aravamudan et al.** (hereinafter **Aravamudan**, US 6,154,7490) in view of **Eshleman et al.** (hereinafter **Eshleman**, US 2002/0116457).

6. Regarding claim 1, **Aravamudan** teaches a communications system comprising: a plurality of account databases [LDBS] each for storing information associated with different accounts (See column 2, lines 1-4 "A plurality of spatially distributed local databases (LDBS) 200A, 200B are provided as well. For every record in the CDB 100, there can be at most one copy of the record in the set of LDBS.");

a central database [CDB] for storing location information associating each account with a respective account database [LDB] (See column 2, lines 28-31 "Step 1020 then commands the CDB 100 to identify an LDB 200A that is local to the registration server 300 in a pointer field of the new data record (Step 1030). The CDB

is the central database holding location information to the account database, referred to in the claim as an LDB.);

at least one communications device [application server] for accessing account information (See column 2, lines 5-6 "Application servers 400A, 400B access the database records from the databases". The application servers are communication devices.); and

an interface device for receiving an account access request from said at least one communications device for a desired account (See column 2, lines 6-9 "Each registration server 300 and application server 400A, 400B may communicate with the CDB 100 and any LDB 200A, 200B in the system" and see column 2, lines 57-58 "Application servers such as server 400B service data requests during system operation." Here, the application servers are the communication devices.),

retrieving account location information from said central database for the desired account (see column 3, lines 42-45 "However, if the subscriber moves to a new area and logs in, the new local LBD (say, LDB 200B) does not possess the subscriber's data record. Here, the application server 400B retrieves the data record from the CDB 100."), and interfacing said at least one communications device with said respective account database associated with the desired account based thereon (see column 2, lines 60-62 "The application server 400B first requests the data record from the LDB 200B local to the application server 400B itself (Step 2010).").

**Aravamudan** fails to teach caching the account location information and using the cached account location information for subsequently interfacing said at least one communications device with said respective account database.

However, **Eshleman** teaches caching the account location information and using the cached account location information for subsequently interfacing said at least one communications device with said respective account database (See page 2, paragraph [0014] "Each RSU maintains a database cache of recently accessed data from which incoming requests may be satisfied and can process database requests on behalf of the DBMS server. The DMBS server is contacted only if the RSU cannot respond to the request with cached data." The recently accessed data is the account location information, since that is what is stored in the database.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine **Aravamudan** with **Eshleman** because they both address managing distributed databases, and by including the caching function of **Eshleman**, accessing time can be reduced and higher efficiency obtained. It is for this reason that one of ordinary skill in the art would have been motivated to include caching the account location information and using the cached account location information for subsequently interfacing said at least one communications device with said respective account database.

7. Regarding claim 2, **Aravamudan** teaches a communications system substantially as shown. **Aravamudan** fails to teach said interface device comprises a caching module for caching the account location information.

However, **Eshleman** teaches said interface device comprises a caching module for caching the account location information. (See page 2, paragraph [0014] "Each RSU maintains a database cache of recently accessed data from which incoming requests may be satisfied and can process database requests on behalf of the DBMS server.")

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine **Aravamudan** with **Eshleman** because they both address managing distributed databases, and by including the caching module of **Eshleman**, accessing time can be reduced and higher efficiency obtained. It is for this reason that one of ordinary skill in the art would have been motivated to include said interface device comprises a caching module for caching the account location information.

8. Regarding claim 9, **Aravamudan** teaches an interface device for interfacing at least one communications device with a plurality of account databases each for storing information associated with different accounts (See column 2, lines 28-31 "Step 1020 then commands the CDB 100 to identify an LDB 200A that is local to the registration server 300 in a pointer field of the new data record (Step 1030)." The CDB is the central database holding location information to the account database, referred to in the claim as an LDB.); the interface device comprising:

a control module for receiving an account access request from the at least one communications device for a desired account (See column 2, lines 6-9 "Each registration server 300 and application server 400A, 400B may communicate with the CDB 100 and any LDB 200A, 200B in the system" and see column 2, lines 57-58 "Application servers such as server 400B service data requests during system operation." Here, the application servers are the communication devices:),

retrieving account location information associating the desired account with a respective account database from a central databases (see column 3, lines 42-45 "However, if the subscriber moves to a new area and logs in, the new local LBD (say, LDB 200B) does not possess the subscriber's data record. Here, the application server 400B retrieves the data record from the CDB 100."), and

interfacing the at least one communications device with the respective account database associated with the desired account based thereon (see column 2, lines 60-62 "The application server 400B first requests the data record from the LDB 200B local to the application server 400B itself (Step 2010).").

**Aravamudan** fails to teach a caching module coupled to said control module for caching the account location information, said control using the cached account location information for subsequently interfacing the at least one communications device with the respective account database.

However, **Eshleman** teaches a caching module coupled to said control module for caching the account location information, said control using the cached account location information for subsequently interfacing the at least one communications device



with the respective account database. (See page 2, paragraph [0014] "Each RSU maintains a database cache of recently accessed data from which incoming requests may be satisfied and can process database requests on behalf of the DBMS server. The DBMS server is contacted only if the RSU cannot respond to the request with cached data." The recently accessed data is the account location information, since that is what is stored in the database.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine **Aravamudan** with **Eshleman** because they both address managing distributed databases, and by including the caching function of **Eshleman**, accessing time can be reduced and higher efficiency obtained. It is for this reason that one of ordinary skill in the art would have been motivated to include a caching module coupled to said control module for caching the account location information, said control using the cached account location information for subsequently interfacing the at least one communications device with the respective account database.

9. Regarding claim 14, **Aravamudan** teaches a method for interfacing at least one communication device with a plurality of account databases each for storing information associated with different accounts (See column 2, lines 1-4 "A plurality of spatially distributed local databases (LDBS) 200A, 200B are provided as well. For every record in the CDB 100, there can be at most one copy of the record in the set of LDBS."), the method comprising:

receiving an account access request from the at least one communications device for a desired account (See column 2, lines 6-9 "Each registration server 300 and application server 400A, 400B may communicate with the CDB 100 and any LDB 200A, 200B in the system" and see column 2, lines 57-58 "Application servers such as server 400B service data requests during system operation." Here, the application servers are the communication devices.),

retrieving account location information associating the desired account with a respective account database from a central database (see column 3, lines 42-45 "However, if the subscriber moves to a new area and logs in, the new local LBD (say, LDB 200B) does not possess the subscriber's data record. Here, the application server 400B retrieves the data record from the CDB 100."),

interfacing the at least one communications device with said respective account database associated with the desired account based upon the retrieved account location information (see column 2, lines 60-62 "The application server 400B first requests the data record from the LDB 200B local to the application server 400B itself (Step 2010).")

**Aravamudan** fails to teach caching the account location information and using the cached account location information for subsequently interfacing the at least one communications device with the respective account database.

However, **Eshleman** teaches caching the account location information and using the cached account location information for subsequently interfacing the at least one communications device with the respective account database (See page 2, paragraph

[0014] "Each RSU maintains a database cache of recently accessed data from which incoming requests may be satisfied and can process database requests on behalf of the DBMS server. The DBMS server is contacted only if the RSU cannot respond to the request with cached data." The recently accessed data is the account location information, since that is what is stored in the database.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine **Aravamudan** with **Eshleman** because they both address managing distributed databases, and by including the caching function of **Eshleman**, accessing time can be reduced and higher efficiency obtained. It is for this reason that one of ordinary skill in the art would have been motivated to include caching the account location information and using the cached account location information for subsequently interfacing the at least one communications device with the respective account database.

10. Regarding claim 17, **Aravamudan** teaches a computer readable medium having computer-executable instructions for interfacing at least one communications device with a plurality of account databases each for storing information associated with different accounts (See column 2, lines 28-31 "Step 1020 then commands the CDB 100 to identify an LDB 200A that is local to the registration server 300 in a pointer field of the new data record (Step 1030)." The CDB is the central database holding location information to the account database, referred to in the claim as an LDB.); the computer-readable medium comprising:

a control module for receiving an account access request from the at least one communications device for a desired account (See column 2, lines 6-9 "Each registration server 300 and application server 400A, 400B may communicate with the CDB 100 and any LDB 200A, 200B in the system" and see column 2, lines 57-58 "Application servers such as server 400B service data requests during system operation." Here, the application servers are the communication devices.),

retrieving account location information associating the desired account with a respective account database from a central databases (see column 3, lines 42-45 "However, if the subscriber moves to a new area and logs in, the new local LBD (say, LDB 200B) does not possess the subscriber's data record. Here, the application server 400B retrieves the data record from the CDB 100."), and

interfacing the at least one communications device with the respective account database associated with the desired account based thereon (see column 2, lines 60-62 "The application server 400B first requests the data record from the LDB 200B local to the application server 400B itself (Step 2010).").

**Aravamudan** fails to teach a caching module coupled to said control module for caching the account location information, said control using the cached account location information for subsequently interfacing the at least one communications device with the respective account database.

However, **Eshleman** teaches a caching module coupled to said control module for caching the account location information, said control module using the cached account location information for subsequently interfacing the at least one

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communications device with the respective account database. (See page 2, paragraph [0014] "Each RSU maintains a database cache of recently accessed data from which incoming requests may be satisfied and can process database requests on behalf of the DBMS server. The DBMS server is contacted only if the RSU cannot respond to the request with cached data." The recently accessed data is the account location information, since that is what is stored in the database.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine **Aravamudan** with **Eshleman** because they both address managing distributed databases, and by including the caching function of **Eshleman**, accessing time can be reduced and higher efficiency obtained. It is for this reason that one of ordinary skill in the art would have been motivated to include a caching module coupled to said control module for caching the account location information, said control using the cached account location information for subsequently interfacing the at least one communications device with the respective account database.

11. Claims 3 – 5 and 7 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Aravamudan** in view of **Eshleman** as applied to claim 1 above, and further in view of **Smith et al.** (hereinafter **Smith**, US 6,871,215).

12. Regarding claim 3, **Aravamudan** and **Eshleman** teach a communication system substantially as claimed.

**Aravamudan** and **Eshleman** fail to teach said at least one communications device has an operating protocol associated therewith, and wherein said interface device comprises at least one protocol interface module for communicating with said at least one communications device using the operating protocol.

However, **Smith** teaches said at least one communications device has an operating protocol associated therewith (See column 2, lines 25-29 "The present invention relates to a universal mail application for wireless device application which allows a user the ability to access and view email messages from a personal account using Internet message Access Protocol (IMAP)". IMAP is an operating protocol.), and wherein said interface device comprises at least one protocol interface module for communicating with said at least one communications device using the operating protocol. (See column 5, lines 6-10 "For instance, FIG. 4 shows a high-level sequence diagram of an exemplary design interface for a universal mail application implemented in a wireless application protocol (WAP) gateway, in accordance with the principles of the present invention." This is an example of a protocol interface module.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by including the operating protocol interface of **Smith**, various disparate protocols can be interpreted, then used by the system providing greater functionality. It is for this reason that one of ordinary skill in the art would have been motivated to include said at least one communications device has an operating protocol associated therewith, and wherein said interface

device comprises at least one protocol interface module for communicating with said at least one communications device using the operating protocol.

13. Regarding claim 4, **Aravamudan** and **Eshleman** teach a communication system substantially as claimed. **Aravamudan** and **Eshleman** fail to teach said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module.

However, **Smith** teaches said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module (See column 2, lines 30-34 "The universal mail application preferably includes multiple front-end user interfaces from WAP and HDML for installation on relevant wireless devices, e.g., on a PQA for PDS software, or on standard HTML interface.")

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by including the various protocols mentioned in **Smith**, the system is able to handle e mail functionality. It is for this reason that one of ordinary skill in the art would have been motivated to include said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module.

14. Regarding claim 5, **Aravamudan** and **Eshleman** teach a communication system substantially as claimed. **Aravamudan** and **Eshleman** fail to teach said interface device further comprises a control module for interfacing said at least one protocol interface module with said central and account databases.

However, **Smith** teaches said interface device further comprises a control module for interfacing said at least one protocol interface module with said central and account databases. (See page 3, paragraph [0028] "The mail bridge 100 further includes an account information store 171 for storing account information for e mail accounts at the Internet mail servers, and an account information module that is used to manage and retrieve the account information in the account information store 171." The mail bridge performs the function of the control module mentioned in the claim.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by including the form of a control module mentioned in **Smith**, the system is able to interpret the various protocols that the emails may be obtained in, providing for a more robust system. It is for this reason that one of ordinary skill in the art would have been motivated to include said interface device further comprises a control module for interfacing said at least one protocol interface module with said central and account databases.



15. Regarding claim 7, **Aravamudan** and **Eshleman** teach a communication system substantially as claimed. **Aravamudan** and **Eshleman** fail to teach said at least one communications device comprises at least one mobile wireless communications device. However, **Smith** teaches said at least one communications device comprises at least one mobile wireless communications device. (See column 2, lines 25-29 "The present invention relates to a universal mail application for wireless device application which allows a user the ability to access and view email messages from a personal account using Internet Message Access Protocol (IMAP)." The device is a mobile wireless communication device.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by including a wireless communication device as mentioned in **Smith**, the system allows for mobile access to the e mail accounts in the various databases, for a greater degree of mobility. It is for this reason that one of ordinary skill in the art would have been motivated to include said at least one communications device comprises at least one mobile wireless communications device

16. Regarding claim 8, **Aravamudan** and **Eshleman** teach a communication system substantially as claimed. **Aravamudan** and **Eshleman** fail to teach the accounts comprise electronic mail (e-mail) accounts. However, **Smith** teaches the accounts comprise electronic mail (e-mail) accounts. (See column 1, lines 41-44 "In accordance

with the principles of the present invention, a universal mail module comprises a plurality of e mail account information files relating to a corresponding plurality of e mail accounts of a wireless subscriber.”)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by having the accounts being composed of e-mail accounts, access is provided to the email no matter where the person chooses to check their e mail because the location of the database is known. It is for this reason that one of ordinary skill in the art would have been motivated to the accounts comprise electronic mail (e-mail) accounts.

17. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Aravamudan** in view of **Eshleman** as applied to claim 1 above, and further in view of **Hoover et al.** (hereinafter **Hoover**, US 5,560,005). **Aravamudan** and **Eshleman** teach a communication system substantially as claimed. **Aravamudan** and **Eshleman** fail to teach said central database further stores shared system setup information; and wherein said interface device also retrieves and caches the shared system setup information for use in interfacing said at least one communications device with said respective account database. However, **Hoover** teaches said central database further stores shared system setup information; and wherein said interface device also retrieves and caches the shared system setup information for use in interfacing said at least one communications device with said respective account database. (See column

23, lines 23-49, where object attribute tables are explained, which describes the format of the data in the database, and how the tables allow the system to interact with disparate database formats.) It would have been obvious to one with ordinary skill in the art at the time of the invention to combine **Hoover** with **Aravamudan** and **Eshleman** because Hoover also addresses distributed databases and by storing the system setup information, the various linked in systems do not have to have the setup information entered every time and provides for a more efficient system. It is for this reason that one of ordinary skill in the art would have been motivated to include said central database further stores shared system setup information; and wherein said interface device also retrieves and caches the shared system setup information for use in interfacing said at least one communications device with said respective account database.

18. Claims 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Aravamudan** in view of **Eshleman** as applied to claim 9 above, and further in view of **Smith et al.** (hereinafter **Smith**, US 6,871,215).

19. Regarding claim 10, **Aravamudan** and **Eshleman** teach an interface device substantially as claimed.

**Aravamudan** and **Eshleman** fail to teach the at least one communications device has an operating protocol associated therewith, and further comprising at least one protocol interface module using the operating protocol for interfacing said control module with the at least one communications device.

However, **Smith** teaches the at least one communications device has an operating protocol associated therewith (See column 2, lines 25-29 "The present invention relates to a universal mail application for wireless device application which allows a user the ability to access and view email messages from a personal account using Internet message Access Protocol (IMAP)". IMAP is an operating protocol.), and further comprising at least one protocol interface module using the operating protocol for interfacing said control module with the at least one communications device. (See column 5, lines 6-10 "For instance, FIG. 4 shows a high-level sequence diagram of an exemplary design interface for a universal mail application implemented in a wireless application protocol (WAP) gateway, in accordance with the principles of the present invention." This is an example of a protocol interface module.) It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by including the operating protocol interface of **Smith**, various disparate protocols can be interpreted, then used by the system providing greater functionality. It is for this reason that one of ordinary skill in the art would have been motivated to include the at least one communications device has an operating protocol associated therewith, and further comprising at least one protocol interface module using the operating protocol for interfacing said control module with the at least one communications device.

20. Regarding claim 11, **Aravamudan** and **Eshleman** teach an interface device substantially as claimed. **Aravamudan** and **Eshleman** fail to teach said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module.

However, **Smith** teaches said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module (See column 2, lines 30-34 "The universal mail application preferably includes multiple front-end user interfaces from WAP and HDML for installation on relevant wireless devices, e.g., on a PQA for PDS software, or on standard HTML interface.")

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by including the various protocols mentioned in **Smith**, the system is able to handle e mail functionality. It is for this reason that one of ordinary skill in the art would have been motivated to include said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module.

21. Regarding claim 13, **Aravamudan** and **Eshleman** teach an interface device substantially as claimed. **Aravamudan** and **Eshleman** fail to teach the accounts

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comprise electronic mail (e-mail) accounts. However, **Smith** teaches the accounts comprise electronic mail (e-mail) accounts. (See column 1, lines 41-44 "In accordance with the principles of the present invention, a universal mail module comprises a plurality of e mail account information files relating to a corresponding plurality of e mail accounts of a wireless subscriber.")

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by having the accounts being composed of e-mail accounts, access is provided to the email no matter where the person chooses to check their e mail because the location of the database is known. It is for this reason that one of ordinary skill in the art would have been motivated to the accounts comprise electronic mail (e-mail) accounts.

22. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Aravamudan** in view of **Eshleman** as applied to claim 9 above, and further in view of **Hoover et al.** (hereinafter **Hoover**, US 5,560,005). **Aravamudan** and **Eshleman** teach an interface device substantially as claimed. **Aravamudan** and **Eshleman** fail teach to the central database further stores shared system setup information; wherein said control module also retrieves the shared system setup information for use in interfacing the at least one communications device with the respective account database, and wherein said caching module caches the retrieved shared system setup information. However, **Hoover** teaches the central database further stores shared system setup information; wherein said control module also retrieves the shared system setup

information for use in interfacing the at least one communications device with the respective account database, and wherein said caching module caches the retrieved shared system setup information. (See column 23, lines 23-49, where object attribute tables are explained, which describes the format of the data in the database, and how the tables allow the system to interact with disparate database formats.) It would have been obvious to one with ordinary skill in the art at the time of the invention to combine **Hoover** with **Aravamudan** and **Eshleman** because Hoover also addresses distributed databases and by storing the system setup information, the various linked in systems do not have to have the setup information entered every time and provides for a more efficient system. It is for this reason that one of ordinary skill in the art would have been motivated to include the central database further stores shared system setup information; wherein said control module also retrieves the shared system setup information for use in interfacing the at least one communications device with the respective account database, and wherein said caching module caches the retrieved shared system setup information.

23. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Aravamudan** in view of **Eshleman** as applied to claim 14 above, and further in view of **Hoover et al.** (hereinafter **Hoover**, US 5,560,005). **Aravamudan** teaches wherein interfacing comprises interfacing the at least one communications device with the respective account database also based upon the retrieved shared system setup information. (See column 2, lines 28-31 "Step 1020 then commands the CDB 100 to

identify an LDB 200A that is local to the registration server 300 in a pointer field of the new data record (Step 1030).” The CDB is the central database holding location information to the account database, referred to in the claim as an LDB.)

**Aravamudan** and **Eshleman** fail teach retrieving further comprises retrieving shared system setup information from the central database and wherein caching further comprises caching the retrieved shared system setup information also for use in subsequently interfacing the at least one communications device with the respective account database.

However, **Hoover** teaches retrieving further comprises retrieving shared system setup information from the central database, and wherein caching further comprises caching the retrieved shared system setup information also for use in subsequently interfacing the at least one communications device with the respective account database (See column 23, lines 23-49, where object attribute tables are explained, which describes the format of the data in the database, and how the tables allow the system to interact with disparate database formats.) It would have been obvious to one with ordinary skill in the art at the time of the invention to combine **Hoover** with **Aravamudan** and **Eshleman** because Hoover also addresses distributed databases and by storing the system setup information, the various linked in systems do not have to have the setup information entered every time and provides for a more efficient system. It is for this reason that one of ordinary skill in the art would have been motivated to include retrieving further comprises retrieving shared system setup information from the central database, and wherein caching further comprises caching



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the retrieved shared system setup information also for use in subsequently interfacing the at least one communications device with the respective account database

24. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Aravamudan** in view of **Eshleman** as applied to claim 14 above, and further in view of **Smith et al.** (hereinafter **Smith**, US 6,871,215). **Aravamudan** and **Eshleman** teach a method substantially as claimed. **Aravamudan** and **Eshleman** fail to teach the accounts comprise electronic mail (e-mail) accounts. However, **Smith** teaches the accounts comprise electronic mail (e-mail) accounts. (See column 1, lines 41-44 "In accordance with the principles of the present invention, a universal mail module comprises a plurality of e mail account information files relating to a corresponding plurality of e mail accounts of a wireless subscriber.")

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by having the accounts being composed of e-mail accounts, access is provided to the email no matter where the person chooses to check their e mail because the location of the database is known. It is for this reason that one of ordinary skill in the art would have been motivated to the accounts comprise electronic mail (e-mail) accounts.

25. Claims 18, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Aravamudan** in view of **Eshleman** as applied to claim 17 above, and further in view of **Smith et al.** (hereinafter **Smith**, US 6,871,215).

26. Regarding claim 18, **Aravamudan** and **Eshleman** teach a computer readable medium substantially as claimed.

**Aravamudan** and **Eshleman** fail to teach the at least one communications device has an operating protocol associated therewith, and further comprising at least one protocol interface module using the operating protocol for interfacing said control module with the at least one communications device.

However, **Smith** teaches the at least one communications device has an operating protocol associated therewith (See column 2, lines 25-29 "The present invention relates to a universal mail application for wireless device application which allows a user the ability to access and view email messages from a personal account using Internet message Access Protocol (IMAP)". IMAP is an operating protocol.), and further comprising at least one protocol interface module using the operating protocol for interfacing said control module with the at least one communications device. (See column 5, lines 6-10 "For instance, FIG. 4 shows a high-level sequence diagram of an exemplary design interface for a universal mail application implemented in a wireless application protocol (WAP) gateway, in accordance with the principles of the present invention." This is an example of a protocol interface module.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by including the operating protocol interface of **Smith**, various disparate protocols can be interpreted, then used by the system providing greater functionality. It is for this reason that one of ordinary skill in the art would have been motivated to include the at least one communications device has an operating protocol associated therewith, and further comprising at least one protocol interface module using the operating protocol for interfacing said control module with the at least one communications device.

27. Regarding claim 19, **Aravamudan** and **Eshleman** teach a computer readable medium substantially as claimed. **Aravamudan** and **Eshleman** fail to teach said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module.

However, **Smith** teaches said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module (See column 2, lines 30-34 "The universal mail application preferably includes multiple front-end user interfaces from WAP and HDML for installation on relevant wireless devices, e.g., on a PQA for PDS software, or on standard HTML interface.")

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by including the various protocols mentioned in **Smith**, the system is able to handle e mail functionality. It is for this reason that one of ordinary skill in the art would have been motivated to include said at least one protocol interface module comprises at least one of a wireless access protocol (WAP) module, a post office protocol (POP) module, and a hypertext markup language (HTML) module.

28. Regarding claim 21, **Aravamudan** and **Eshleman** teach a computer readable medium substantially as claimed. **Aravamudan** and **Eshleman** fail to teach the accounts comprise electronic mail (e-mail) accounts. However, **Smith** teaches the accounts comprise electronic mail (e-mail) accounts. (See column 1, lines 41-44 "In accordance with the principles of the present invention, a universal mail module comprises a plurality of e mail account information files relating to a corresponding plurality of e mail accounts of a wireless subscriber.")

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of **Smith** with **Aravamudan** and **Eshleman** because **Smith** also relates to handling a plurality of account files and by having the accounts being composed of e-mail accounts, access is provided to the email no matter where the person chooses to check their e mail because the location of the database is known.

It is for this reason that one of ordinary skill in the art would have been motivated to the accounts comprise electronic mail (e-mail) accounts.

29. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Aravamudan** in view of **Eshleman** as applied to claim 9 above, and further in view of **Hoover et al.** (hereinafter **Hoover**, US 5,560,005). **Aravamudan** and **Eshleman** teach a computer readable medium substantially as claimed. **Aravamudan** and **Eshleman** fail teach to the central database further stores shared system setup information; wherein said control module also retrieves the shared system setup information for use in interfacing the at least one communications device with the respective account database, and wherein said caching module caches the retrieved shared system setup information. However, **Hoover** teaches the central database further stores shared system setup information; wherein said control module also retrieves the shared system setup information for use in interfacing the at least one communications device with the respective account database, and wherein said caching module caches the retrieved shared system setup information. (See column 23, lines 23-49, where object attribute tables are explained, which describes the format of the data in the database, and how the tables allow the system to interact with disparate database formats.) It would have been obvious to one with ordinary skill in the art at the time of the invention to combine **Hoover** with **Aravamudan** and **Eshleman** because Hoover also addresses distributed databases and by storing the system setup information, the various linked in systems do not have to have the setup information entered every time and provides for a more

efficient system. It is for this reason that one of ordinary skill in the art would have been motivated to include the central database further stores shared system setup information; wherein said control module also retrieves the shared system setup information for use in interfacing the at least one communications device with the respective account database, and wherein said caching module caches the retrieved shared system setup information.

### ***Conclusion***

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Skantze** (US 2003/0014327) teaches a server unit which has access to a database that stores computer network addresses relating to computer that hold account information belonging to users.

**Brubacher et al.** (US 2003/0177188) teaches storing, managing and retrieving account information for e mail accounts.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis L. Vautrot whose telephone number is 571-272-2184. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dv  
14 August 2006

  
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 18 August 2006